WASTEWATER DIVISION of PUBLIC WORKS DEPARTMENT

DEPARTMENT DESCRIPTION

The Wastewater Division conveys domestic sewage to the Wastewater Reclamation Plant (WRP) through a wastewater collection system of over 500,000 feet of sewer pipes and 15 pump/lift stations. The wastewater receives tertiary treatment at the WRP and is disinfected with UV light. The reclaimed effluent is reintroduced into the Verde Valley watershed for beneficial reuse via an irrigation system on City property. The biosolids are transported to the Grey Wolf Landfill for final disposal.

MISSION STATEMENT

The mission of the Public Works Department Wastewater Division of the City of Sedona, with public health and safety being of the highest priority, is to provide professional and efficient maintenance and operation of the wastewater system, which includes facilities for collection, transport, treatment and disposal of wastewater related flows, in a manner which takes into account the requirements of the Arizona Department of Environmental Quality; and the direction of the City Manager, the City Council, the Public Works Director; and the desires of the citizens of Sedona, as well as the professional standards governing wastewater system operations.

Did You Know?

- The State-Certified Wastewater staff are on-call 24-hours a day, seven days a week to respond to emergencies in the collection and treatment system. Call 911 for after-hours emergencies.
- The Wastewater Reclamation Plant has 27 acres of wetlands and marshes that provide an attractive habitat for a wide variety of animals.
- The Plant received and treated 418 million gallons of wastewater in 2008.
- 260,000 gallons of septage waste was received from septic systems within the City of Sedona.
- 1461 tons of biosolids were landfilled at the Gray Wolf Landfill.

SIGNIFICANT CHANGES

New SCADA control software and programming improvements have results in automated controls of many of the reclamation plant processes, in improved recordkeeping and statistical information, and in improved alarm systems.

2009-2010 OBJECTIVES

- ✓ A program has been implemented to upgrade the biosolids handling facilities with the short term goal of providing adequate treatment capacity and the long term goal of upgrading to produce biosolids that can be put to beneficial use and reduce energy and chemical consumption.
- ✓ Evaluate options for reclaimed water

- management to improve sustainability.
- Complete reservoir berm restoration and vegetation management program.
- ✓ Substantially complete upgrade of the City's three major pump stations.

2008-2009 ACCOMPLISHMENTS

- ✓ In 2009, the sewer cleaning and closed circuit TV inspection was completed for all of the sewered portions of the City. This cleaning and inspection has allowed the Department to prepare a prioritized repair and upgrade program for sewer lines and manholes.
- ✓ Installation of a biofilter unit at SR 89A and Upper Red Rock Loop was completed to resolve the odor problem that had existed in that area.
- Enclosure of the centrifuge building has resulted in energy and chemical usage reductions.

City of Sedona Budget Summary by Department

DUDGET BY DDGGDAM	F۱	Y 2007-08	F	Y 2008-09	F`	Y 2008-09	F	Y 2009-10	Percent Over
BUDGET BY PROGRAM	Actual		Budget		Estimate		Budget		Last Year
Administration - plant	\$	557,029	\$	724,117	\$	182,697	\$	189,347	
Administration - city hall	\$	-	\$	-	\$	393,491	\$	417,770	
Total - Plant Administration	\$	557,029	\$	724,117	\$	576,188	\$	607,117	-16%

BUDGET BY CATEGORIES OF EXPENDITURES	F'	Y 2007-08 Actual	F	Y 2008-09 Budget	-	Y 2008-09 Estimate	F	Y 2009-10 Budget	Percent Over Last Year
Wages/Salaries/Benefits	\$	434,303	\$	531,946	\$	454,218	\$	451,424	
Administrative Cost	\$	115,180	\$	191,046	\$	121,970	\$	130,693	
Assets	\$	7,547	\$	1,125	\$	-	\$	25,000	
Total - Plant Administration	\$	557,029	\$	724,117	\$	576,188	\$	607,117	-16%

STAFFING BY PROGRAM	FY 2007-08	FY 2008-09	FY 2008-09	FY 2009-10	Percent Over Last Year
Administration - plant	2.40	2.40	2.40	2.40	
Administration - city hall	7.05	7.30	7.30	7.30	
Total - Plant Administration	9.45	9.70	9.70	9.70	

SUB-TOTAL ASSETS

GRAND TOTAL

EXPENDITURE ANALYSIS	BUDGETED			BUDGETED		ACTUAL	BUDGETED	APPROVED
Wastewater Administrative	2006-07	2006-07		2007-08		007-08	2008-09	2009-2010
Salary/Wages	290,326 2,212	288,811 1,564		333,418 2,267	3	16,590 1,938	388,597 2,706	330,727
Overtime Tomp (Part Time Wages	2,212	1,304		2,207		3,458	2,700	2,347
Temp/Part-Time Wages Direct Payroll Costs	22,379	20,509		25,680		24,845	29,935	25,480
Retirement	24,028	21,659		29,313		28,569	35,022	30,656
STD/LTD Insurance	2,370	1,946		2,689		2,826	3,085	2,483
Health/Dental/Life Insurance	63,061	46,806		48,199		47,738	57,623	48,778
Workers Compensation	2,821	2,947		4,705		3,976	5,160	4,141
Flex Leave Reimbursement	4,207	-		5,601		_	4,658	(0)
Employee Benefits	1,800	3,896		4,380		4,364	5,160	6,812
SUB-TOTAL SALARIES & WAGES	\$ 413,204	\$ 388,138	\$ 4	456,252	\$ 4	34,303	\$ 531,946	\$ 451,424
Employee Exams	_			65			65	65
Uniforms		_		114		_	100	-
Training/Staff Development	3,900	2,587		5,780		7,202	6,080	_
Professional Services	10,800	14,366		12,800		11,015	12,800	12,800
Advertising	500	1,736		500		112	225	225
Subscriptions/Dues/Licenses	210	334		280		169	210	210
Telephone	7,494	7,718		8,010		7,763	9,130	4,610
Service Charges	-	-		-		1,751	10,000	17,000
Permit Fees	14,830	15,794		15,830		18,413	17,466	17,466
Printing /Office Supplies/Photographic	2,000	3,762		3,220		6,213	5,300	6,100
Postage	20,975	17,568		22,975		21,646	24,975	24,975
System Maintenace	-	-		-		-	500	500
Office Maintenance	500	386		2,800		2,879	2,800	2,825
Lease Purchase	-	-		7,000		-	3,600	3,600
Software Maintenance	4,000	7,469		4,000		3,893	4,150	5,000
Vehicle Expense	1,000	170		1,000		595	1,000	1,000
General Legal Expenses	-	3,885		-		1,412	-	- 200
Recording/TAT fees	500 15 750	177		350		384	250	300
Audit	15,750	15,683		16,500		16,500	16,500	16,500
Contingency Maintenance/Janitorial	2,400	3,125		12,680		5,377	62,670	7,442
Utilities	1,500	3,123		1,500		1,500	1,500	1,500
Water Conservation	1,500	400		1,000		1,300	1,000	1,000
Property & Casualty Insurance	6,613	-		6,800		6,800	6,800	6,800
Gasoline & Diesel	600	623		600		570	600	600
Office Furniture - Non Capital	-	-		1,650		92	3,150	-
Office Equipment - Non Capital	-	1,107		-		487	-	-
Computer Hardware - Non Capital	-	109		-		-	-	-
Computer Software-Non Capital	1,000	-		-		-	-	-
Radio & Phone - Non Capital	1,800	115		-		408	-	-
Safety Supplies	175	211		175		-	175	175
Depreciation	-	-		-		-	-	-
SUBTOTAL ADMINISTRATIVE EXPENDITURES	\$ 98,047	\$ 97,324	\$ ^	125,629	\$ 1	15,180	\$ 191,046	\$ 130,693
Office Furniture	_	_						
Office Equipment	-	-		3,000		-	-	-
Computer Hardware	20,200	20,800		8,750		4,866	750	-
Computer Software	-	-		3,125		2,681	375	25,000
Vehicle	-	-		-		-	-	-

\$ 20,200 \$ 20,800 \$ 14,875 \$ 7,547 \$ 1,125 \$ 531,451 \$ 506,261 \$ 596,756 \$ 557,029 \$ 724,117 \$

25,000

607,117

City of Sedona Budget Summary by Department

BUDGET BY PROGRAM	FY 2007-08 Actual		FY 2008-09 Budget		F	Y 2008-09 Estimate	F	Y 2009-10 Budget	Percent Over Last Year
Plant Operations	\$	815,055	\$	1,056,683	\$	1,085,611	\$	1,088,688	
Collection Systems	\$	930,600	\$	1,415,150	\$	1,152,974	\$	1,160,066	
Lab	\$	107,386	\$	130,240	\$	126,777	\$	127,636	
Total - Plant Operations	\$	1,853,041	\$	2,602,073	\$	2,365,362	\$	2,376,389	-9%

BUDGET BY CATEGORIES OF EXPENDITURES	F	Y 2007-08 Actual	F	Y 2008-09 Budget	F	Y 2008-09 Estimate	F	Y 2009-10 Budget	Percent Over Last Year
Wages/Salaries/Benefits	\$	599,260	\$	672,836	\$	599,034	\$	657,777	
Administrative Cost	\$	1,253,629	\$	1,916,737	\$	1,749,828	\$	1,662,112	
Assets	\$	152	\$	12,500	\$	16,500	\$	56,500	
Total - Plant Operations	\$	1,853,041	\$	2,602,073	\$	2,365,362	\$	2,376,389	-9%

STAFFING BY PROGRAM	FY 2007-08	FY 2008-09	FY 2008-09	FY 2009-10	Percent Over Last Year
Plant Operations	4.30	4.30	4.30	4.30	
Collection Systems	4.00	4.00	4.00	4.00	
LAB	1.20	1.20	1.20	1.20	
Total - Plant Operations	9.50	9.50	9.50	9.50	

CITY OF SEDONA								
EXPENDITURE ANALYSIS	BUDGETED		ACTUAL	BUDGETED	ACTUAL	BUDGETED		APPROVE
Wastewater Plant	2006-07		2006-07	2007-08	2007-08	2008-09		2009-201
Salary/Wages	379,547		10,286	409,398	401,164	429,339		429,108
Overtime	39,619		19,965	44,286	30,323	46,443		44,966
Temp/Part-Time Wages	22.044		27 100	24 707	21 247	24 207		24 24
Direct Payroll Costs	32,066		27,190	34,707	31,347	36,397		36,267
Retirement	36,048		31,417	41,285	38,533	42,582		42,667
STD/LTD Insurance	3,654		3,128	4,048	3,949	4,380		4,083
Health/Dental/Life Insurance	102,368		84,692	92,122	77,815	86,979		82,730
Workers Compensation	16,693		14,853	20,390	16,129	21,383		17,958
Flex Leave Reimbursement	5,500		-	5,934	-	5,333		C
Employee Benefits	-		-	-	-	-		-
SUB-TOTAL SALARIES & WAGES	\$ 615,495	\$ 5	51,532	\$ 652,170	\$ 599,260	\$ 672,836	\$	657,777
Employee Exams	731		_	670	100	805	ı —	805
Uniform Allowance	4,163		3,595	4,563	7,020	6,930		6,480
Training/Staff Development	11,540		5,403	15,790	11,751	14,500		0,400
Professional Services	253,330		59,523	12,230	25,263	17,230		43,670
Tech Support	13,000		1,050	13,000	19,295	23,000		23,000
Advertising	13,000		1,000	800	19,293	400		23,000
Subscriptions/Dues/Licenses	1,394		460	2,504	1,511	2,465		2,200
Telephone	6,348		7,106	7,200	11,944	14,190		13,990
Permit Fees	3,000		1,595	9,400	2,187	2,200		2,200
Printing/Office Supplies/Photographic	700		2,304	1,000	1,429	1,460		1,460
Printing/Office Supplies/Photographic Postage & Delivery	1,850		1,381	1,850	7429	1,400		1,400
Office Maintenance	1,650		34	1,000	142	1,400		1,400
	500		2,672	8,000	7,610	8,000		6,000
Equipment & Other Rentals					54.417	250,000		250,000
Equipment Repair	171,000 3,500		98,287 4,073	161,000 3,500	54,41/	8,000		250,000 8,475
Software Maintenance	12,000		21,821	12,000	23,538	16,000		14,000
Vehicle Expenses	12,000		21,021	12,000	23,330	24,000		14,000
Spendable Contingency Maintenance & Improvements	4,948		11 012	11 200	9,998			-
Maintenance & Improvements	4,948		11,813	11,280	7,770	11,800		900
Janitorial Supplies	289,000	1	- 06 270	314,500	25/1 /42	401 200		404,550
Utilities			16 034		354,463	401,300		
Gasoline & Diesel	11,000		16,934	35,100	18,506	24,100		25,305
Solid Waste	113,368 10,000	ı	00,942 20,355	121,168 15,000	147,135 12,930	145,192 18,000		141,902 18,900
Septic Maintenance Penlacement & Extension	10,000		20,333	13,000	12,730	10,000		10,700
Replacement & Extension	465,000	1	23,332	895,968	375,272	676,300		459,300
Sewer System Maintenance/Repair	85,000			74,872		102,040		
Plant Maintenance/Repairs	65,000	ı	01,670	300	49,746 521	102,040		104,500
Offic Furniture - Non Capital			-	300		-		-
Computer Software - Non Capital	_		-	-	781 5.580	4 000		500
Computer Software - Non Capital	2 220		י יחר	7 200		4,800		-
Machinery & Equipment - Non Capital	3,230		3,297	7,200	1,045	6,000		450
Radio & Phone - Non Capital	6,600		928	1E 07F	1,144	10 775		450
Safety Supplies	20,013		42,128	15,975	20,619	12,775		14,975
Oil & Lubricants Wastewater Supplies	5,000 102,800		2,127 86,051	5,750 119,931	975 87,983	5,750 118,100		4,750 112,400
wastewater supplies	102,600		00,001	117,731	01,703	110,100		112,400
SUBTOTAL TREATMENT PLANT EXPENDITURES	\$ 1,599,015	\$ 1,0	15,259	\$ 1,870,551	\$ 1,253,629	\$ 1,916,737	\$	1,662,112
Office Furniture	-		-	-	-	-		-
Computer Hardware	-		3,433	-	83	-		-
Machinery & Equipment	-		-	-	-	12,500		24,000
Radio	-		-	_	_	-		
Telephone Equipment	-		-	_	_	-		
Motor Vehicle	-		7,510	-	68	-		32,500
	-		-	-	-	-		
SUB-TOTAL ASSETS	\$ -	\$	10,943	\$ -	\$ 152	\$ 12,500	\$	56,500
GRAND TOTAL	\$ 2.214.510	\$ 1.5	77.734	\$ 2.522.721	\$ 1.853.041	\$ 2.602.073	\$	2.376.389

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EXPENDITURE ANALYSIS	BUDGETED	ACTUAL	BUDGETED	ACTUAL	BUDGETED	APPROVE
Wastewater Debt Service	2006-07	2006-07	2007-08	2007-08	2008-09	2009-2010
SUB-TOTAL SALARIES & WAGES						
Series 2007 (NEW)	-	-	142,235	1,362,746	1,529,756	1,528,756
Series 1997 {State Rev Fund/WIFA}	121,161	121,161	121,161	121,161	121,161	121,161
C.O.P. Series 1994/Refinance 2002	288,678	288,678	289,678	289,678	290,278	289,865
Series 1998 (Borrowing)	641,223	630,435	652,990	652,990	438,663	438,663
Bond Debt Service 1992/Refinance 2004	2,392,250	2,391,267	2,383,000	2,383,000	2,389,750	2,386,500
Refinance Second Series 2004	860,490	860,336	859,086	859,086	860,781	664,850
Refinance Series 2005 (1998 Series)	530,088	529,959	530,088	530,088	735,088	743,938
Bond & C.O.P. Administrative Fees	11,000	8,533	12,000	8,674	12,000	12,000
Debt Issuance Cost	-	20,143	-		-	-
Arbitrage	5,000	1,900	5,000	1,550	5,000	5,000
SUBTOTAL DEBT SERVICE EXPENDITURES	\$ 4,849,890	\$ 4,852,413	\$ 4,995,238	\$ 6,208,972	\$ 6,382,477	\$ 6,190,733
SUB-TOTAL ASSETS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
GRAND TOTAL	\$ 4,849,890	\$ 4,852,413	\$ 4,995,238	\$ 6,208,972	\$ 6,382,477	\$ 6,190,733

City of Sedona Budget Summary by Department

BUDGET BY PROGRAM	F	FY 2007-08 Actual		FY 2008-09 Budget		FY 2008-09 Estimate		FY 2009-10 Budget	Percent Over Last Year	
Construction	\$	4,876,965	\$	15,165,426	\$	8,786,910	\$	12,169,909		
Total - WW Construction	\$	4,876,965	\$	15,165,426	\$	8,786,910	\$	12,169,909	-20%	

BUDGET BY CATEGORIES OF EXPENDITURES	F	Y 2007-08 Actual	I	FY 2008-09 Budget	I	FY 2008-09 Estimate	I	FY 2009-10 Budget	Percent Over Last Year
Wages/Salaries/Benefits	\$	448,124	\$	437,309	\$	443,241	\$	392,008	
Administrative Cost	\$	4,308,931	\$	14,509,617	\$	8,140,876	\$	11,777,901	
Assets	\$	119,910	\$	218,500	\$	202,793	\$	-	
Total - WW Construction	\$	4,876,965	\$	15,165,426	\$	8,786,910	\$	12,169,909	-20%

STAFFING BY PROGRAM	FY 2007-08	FY 2008-09	FY 2008-09	FY 2009-10	Percent Over Last Year
Construction	6.10	6.10	5.60	5.60	
Total - WW Construction	6.1	6.1	5.6	5.6	-8%

CITY		

CITY OF SEDONA											
EXPENDITURE ANALYSIS	BUDGETED	1	ACTUAL		BUDGETED		ACTUAL		BUDGETED		APPROVED
Wastewater Construction	2006-07		2006-07		2007-08		2007-08		2008-09		2009-2010
Salary/Wages	305,575		340,016		325,478		324,792		301,961		270,445
Overtime	8,301		1,228		8,831		1,713		14,312		11,909
Direct Payroll Costs	24,012		23,732		25,575		24,162		24,195		21,600
Retirement	28,363		28,855		31,640		30,126		29,500		26,667
STD/LTD Insurance	2,803		2,850		3,004		2,978		2,797		2,320
Health/Dental/Life Insurance	66,439		66,596		52,728		56,414		51,543		51,608
Workers Compensation Insurance	8,102		8,470		10,157		7,939		9,250		6,678
Flex Leave Reimbursement	4,428		5,175		4,717		,,,,,,		3,751		0,070
Employee Benefits	7,420				7,717				3,731		780
SUB-TOTAL SALARIES & WAGES	\$ 448,023	\$	471,747	\$	462,130	\$	448,124	\$	437,309	\$	392,008
JOB-TOTAL SALAKIES & WAGES	Ψ 440,023	Ψ	771,777	Ψ	402,130	Ψ	440,124	Ψ	437,307	Ψ	372,000
Employee Exams	_		_								
Uniform Allowance	1,000		425		1,000		609		1,000		400
Training/Staff Development	2,800		257		5,535		3,883		5,535		400
Professional Services	13,000		257		13,000		829		45,000		10,000
	13,000		-		13,000		027		45,000		10,000
Advertising	205		-		445		100		///		
Subscriptions/Dues/Licenses	325		1 400		445		192		660		1 202
Telephone	1,900		1,498		1,618		1,310		1,300		1,300
Office/Printing Supplies	1,300		1,484		1,300		2,231		1,500		1,500
Postage	75		227		75				75		75
Automobile Expense	8,000		5,567		4,500		1,316		2,500	ĺ	2,500
Legal Fees	30,000		8,610		5,000		12,849		5,000		5,000
Recording Fees	150		98		150		13		150		150
Contingency	2,401,000		-		-		-		50,000		-
Rent	6,000		-		6,000		6,000		6,000		6,000
Utilities	-		-		-		171		-		-
Gasoline	-		2,159		3,500		4,334		6,000		7,000
Office Furniture - Non Capital	-		-		1,500		1,484		1,500		-
Office Equipment - Non Capital	-		-		-		1,165		-		-
Computer Software - Non Capital	-		330				-		-		-
Machinery & Equipment - Non Capital	-		-		-		-		-		-
Radio & Phone Equip - Non Capital	840		230		-		128		-		-
Safety Equipment	1,200		1,168		2,700		2,304		2,700		2,700
Special Supplies	-				600		624		600		600
Laterals	40,000				40,000		3,140		15,000		15,000
Plant Upgrade	1,290,000		1,191,267		235,000		170,583		745,750		1,555,000
Long Term Effluent	302,000		190,687		_		_		_		679,000
Pump Lift Station Improvements	5,889,500		202,239		6,250,000		2,472,768		7,298,347		5,058,903
Construction Mgmt	-				-		-,,		-		-
Phase 2 Design/Construction	_		_		718,000		923,760		31,000		31,000
Treatment Plant O & M	_		_		355,000		52,261		655,000		300,000
Collection System	6,842,913		4,702,166		5,871,000		646,980		5,560,000		4,091,773
Transfers	2,500,000		4,702,100		5,071,000		040,700		75,000		10,000
Transiers	2,300,000								75,000		10,000
SUBTOTAL CONSTRUCTION	\$ 19,332,003	\$	6,308,411	\$	13,515,923	\$	4,308,931	\$ 1	4,509,617	\$	11,777,901
SOUTH CONSTRUCTION	ψ 17,002,000	Ψ	0,000,111	Ψ	10,010,720	Ψ	1,000,701	Ψ.	1,007,017	Ψ	11,777,701
Office Furniture	-		_				_				_
Office Equipment	-		-		-		-		-		-
Computer Hardware	4,100		_		4,600		3,809		_		_
Computer Software	.,.00		_				-		_		_
Data	95,750		95,750		-		-		-		_
Machinery & Equipment	25,000		31,098		50,600		35,449		130,500		-
Radio/Telephone Equipment	25,000		31,070		50,000		55,447		130,300		-
Vehicles	384,000		338,152		99,000		80,652		88,000		-
	50,000				77,000		00,002		00,000		-
Land Acquisition	30,000		2,146		-		-		-	ĺ	-
	\$ 558,850	\$	467,146	\$	154,200	\$	119,910	\$	218,500	\$	
GRAND TOTAL	\$ 20,338,876	\$		_	14,132,253	\$	4,876,965		5,165,426		12,169,909
SIGNED TOTAL	Ψ 20,330,070	φ	1,271,303	Ψ	17,102,200	φ	7,010,703	ΨI	0,100,420	Ψ	12,107,707



Project Title:

WWTP - Solids Handling Upgrades

22 Capital Improvements Fund:

59-5252-00-946, PLANT UPGRADE - WW02O

Department:

Wastewater Capital

Community Plan Element:

12.0 Community Facilities

Goal 3.0: Provide for effective, safe, efficient, and economical wastewater disposal and water supply and distribution systems.

3.1: Continue to construct a wastewater treatment system and maximize the potential for reuse of effluent and aquifer recharge.

Capital Improvement Plan Program:

Wastewater

Project Description:

Improve and increase solids handling facilities by the following:

Design and rebuild existing sludge drying beds Potentially build two additional sludge drying beds 30% design for new solar drying facility Environmental permitting

Requirement/Need for Project:

Increased and improved solids handling capacity will provide cost savings and environmentally friendly options for solids management. Solids handling capability is a limitation to the plant capacity. Increased and improved capacity will allow continued operation during wet weather when the existing sludge drying beds are not effective, provide storage space during centrifuge down-time or backlog, and provide for economic and environmentally-friendly options for solids handling. Upgrading to solar drying facilities can potentially produce a Class A biosolid that can be land applied.

Consequence of Not Performing Project:

Rising expenses for solids disposal.

Potential non-compliance and/or environmental impacts due to restricted solids handling during wet weather or equipment failure.

Inability to develop beneficial usage of biosolids (sludge).

Operation Impacts for Maintenance, Staffing, Etc.:

No increase in maintenance or staffing.

Provides operational options during failures or bad weather.

Related Projects:

no answer

Possible Funding Source:

no answer

Proposed Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2013-2014
Construction	\$850,000.00	\$0.00	\$0.00	\$3,500,000.00
Construction Mgt.	\$50,000.00	\$0.00	\$0.00	\$50,000.00
Contingency	\$500,000.00	\$0.00	\$0.00	\$100,000.00
Design/Engineering	\$75,000.00	\$0.00	\$0.00	\$0.00
Environmental	\$80,000.00	\$0.00	\$0.00	\$40,000.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$0.00	\$0.00
Maintenance	\$0.00	\$0.00	\$0.00	\$0.00
FY Totals:	\$1,555,000.00	\$0.00	<u>\$0.00</u>	\$3,690,000.00
		Expe	nditures Total	: \$5,245,000.00



Project Title:

Wastewater Treatment Plant Upgrade

22 Capital Improvements Fund:

59-5252-00-946, PLANT UPGRADE - WW02O

Department:

Wastewater Capital

Community Plan Element:

12 Community Facilities

Capital Improvement Plan Program:

Wastewater

Project Description:

Upgrade treatment plant to be able to achieve Class A+ or better water, as needed for vadose or aquifer injection or other uses of the reclaimed water that may be developed by the Wastewater Effluent Disposal and Land Use Task Force (WEDLU). An alternate discharge than irrigation is needed to meet future disposal needs since the current irrigation lands will not accommodate all of the effluent at buildout of the plant. Costs listed under 2009/2010 'Maintenance' are for analytical tests to confirm present effluent characteristics. This budgetary projection assumes worst case where drinking water standards must be met for injection in an aquifer and is based on membrane filtration.

Requirement/Need for Project:

A project is currently underway to determine if effluent recharge into either the vadose zone or into an aquifer is feasible. If this method of discharge is determined to be feasible, it might be necessary to upgrade the wastewater treatment facilities. The extent of upgrade will depend on the type and point of discharge.

This cost is shown separately because upgrade of the level of treatment could be required to implement several effluent management approaches under consideration in FY 09/10.

SEE ALSO WASTEWATER TREATMENT PLANT RECHARGE capital worksheet

Consequence of Not Performing Project:

Inability to increase sewerage of the City due to effluent disposal requirements. (see Recharge Project capital sheet)

Increasing investment in maintaining the irrigation system.

Operation Impacts for Maintenance, Staffing, Etc.:

Slight increase in operating responsibilities. This will be partially offset by elimination of the irrigation system.

Related Projects:

no answer

Possible Funding Source:

Sales tax Capacity fee Congressional appropriation

Proposed Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2013-2014
Construction	\$0.00	\$0.00	\$5,000,000.00	\$0.00
Construction Mgt.	\$0.00	\$0.00	\$100,000.00	\$0.00
Contingency	\$5,000.00	\$50,000.00	\$100,000.00	\$0.00
Design/Engineering	\$0.00	\$400,000.00	\$0.00	\$0.00
Environmental	\$0.00	\$30,000.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$0.00	\$0.00
Maintenance	\$20,000.00	\$0.00	\$0.00	\$0.00
FY Totals:	\$25,000.00	\$480,000.00	\$5,200,000.00	<u>\$0.00</u>

Expenditures Total: \$5,705,000.00

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Project Title:

Wastewater Treatment Plant Recharge Project

22 Capital Improvements Fund:

59-5252-00-956, COLLECTION SYSTEM

Department:

Public Works

Community Plan Element:

Community Facilities 3.1

Capital Improvement Plan Program:

Wastewater

Project Description:

This project would allow the City to dispose of one to two million gallons per day of treated wastewater by recharging the Verde River Aquifer. The recharge will add water to the Verde River Basin in a manner that will allow for its reuse over time by properties developing within the Verde River Basin. This project would reduce the area used for the current method used to dispose of treated wastewater by spray irrigation from approximately 300 acres to about 50 acres. To do this, the City will need to treat its water to appropriate quality for recharge, pipe the water to the Verde River Basin, and pump the water into the underground aquifer on property it will need to purchase as a recharge station site. As the water is pumped into the ground, the City expects to receive water credit allocations from the Arizona Department of Water Resources for a percentage of the water being placed into storage.

FY 09/10 Notes

Anticipated expenditure in FY 08/09 is \$60,000. ALSO REFER TO WASTEWATER TREATMENT PLANT UPGRADE CAPITAL WORK SHEET. The work there may be necessary if the treatment process must be upgraded to Class A+ or better treatment level, in order to pursue effluent injection.

Requirement/Need for Project:

The City's Wastewater Treatment Plant is approaching treatment capacity – meaning that after about 2,500 new connections, the current treatment plant will not be able to handle any more inflow of sewer water from the community. Recharge (more treatment of the effluent) would provide more capacity for inflow and lengthen the life of the existing treatment plant. Increasing capacity at the plant also reduces the risk of overflow or plant failure. If no new mechanism for disposing of effluent is found, the other option is to expand the plant, a very expensive venture with far less tangential benefit than recharge.

Finding a way to dispose of treated wastewater on a permanent basis, other than by spray irrigation, will free up land at the Wastewater Reclamation Plant for other, as yet undetermined, uses.

Consequence of Not Performing Project:

- 1. The Wastewater plant may not be able to safely manage 2.0 million gallons of inflowing wastewater.
- 2. A potential revenue source may be lost.
- 3. Alternate uses of the City land may not be realized.

Operation Impacts for Maintenance, Staffing, Etc.:

City staff will need to maintain the recharge piping, pumps, and recharge area. Also, there will be a need to track the credits generated and their use. This may require additional staff in the Wastewater Division and Finance Department. At the very minimum, the existing staff will have significant new duties that will stretch them. At this point, anticipate one additional staff member at the Wastewater Treatment Plant as a Plant Operator.

Related Projects:

no answer

Possible Funding Source:

1/2 sales tax

Partnership with those purchasing water rights

Proposed Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013
Construction	\$0.00	\$0.00	\$0.00	\$1,800,000.00
Construction Mgt.	\$0.00	\$0.00	\$0.00	\$125,000.00
Contingency	\$0.00	\$25,000.00	\$50,000.00	\$0.00
Design/Engineering	\$654,000.00	\$225,000.00	\$650,000.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$525,000.00	\$0.00
Maintenance	\$0.00	\$0.00	\$0.00	\$0.00
FY Totals:	<u>\$654,000.00</u>	\$250,000.00	\$1,225,000.00	\$1,925,000.00
Expenditures Total: \$4,054,000.00				



Project Title:

Major Pump Station Improvements

22 Capital Improvements Fund:

59-5252-00-952, PUMP LIFT STATION IMPROVEMENTS

Department:

Wastewater Capital

Community Plan Element:

Community Facilities 3.1

Capital Improvement Plan Program:

Wastewater

Project Description:

Design and construct improvements to the three major sewer pump stations (Brewer, Carroll Canyon and El Camino). At each station, these improvements include construction of a bypass with wet well, replacing the existing pumps and drive controls, and various operational and safety improvements. This will be accomplished through a Construction Manager @ Risk (CMAR) process. This process started in FY 2005/2006 with a construction design/management oversight contract with Stanley Consultants. In FY 2006/2007, the process continued when it was identified that the pump and pump control upgrades were an urgent requirement. In FY 2006/2007, the City entered into an agreement with a CMAR for design phase services. Construction began on 07/24/2007 and is continuing. As of 01/2008, we expect to have at least five Guaranteed Maximum Price (GMP) contracts under the CMAR process. The CMAR is executing the first two GMP contracts, and we are negotiating the final costs for the third GMP and have started working on the fourth. We expect construction to be completed by the spring of 2009.

Requirement/Need for Project:

The pump stations have not been improved since their construction. The pumps and controls are failing at an increasing rate, with parts becoming difficult, if not impossible, to obtain. These stations have been operating continuously since having been placed into service in 1992. The lack of bypass capability, coupled with near-capacity flows into the stations, has resulted in a situation where the wastewater staff does not have the opportunity to take the wet wells and other essential equipment out of service to perform inspections, maintenance and repairs. As the stations age, the probability of catastrophic failure of components of these stations also increases. There is a high probability that such failures will result in non-compliance with State and Federal standards, and subject the City to fines and penalties.

Consequence of Not Performing Project:

Inadequately and poorly maintained pump station facilities and equipment may fail resulting in spills and non-compliance with State and Federal standards, subjecting the City to fines and penalties, and additional costs to provide an alternate means for collecting and removing the wastewater.

Operation Impacts for Maintenance, Staffing, Etc.:

Under the current situation, the amount of time required to maintain and repair the existing obsolete equipment and facilities is steadily increasing. These pump stations are perceived as ticking time bombs that multiply the stress levels experienced by the Wastewater staff and diminish their job morale.

Related Projects:

no answer

Possible Funding Source:

\$.005 sales tax

Proposed Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012
Construction	\$4,776,723.00	\$0.00	\$0.00
Construction Mgt.	\$0.00	\$0.00	\$0.00
Contingency	\$0.00	\$0.00	\$0.00
Design/Engineering	\$282,180.00	\$0.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$0.00
Maintenance	\$0.00	\$0.00	\$0.00
FY Totals:	\$5,058,903.00	\$0.00	<u>\$0.00</u>

Expenditures Total: \$5,058,903.00



Project Title:

WWTP - Berm Maintenance

22 Capital Improvements Fund:

59-5252-00-955, TREATMENT PLANT O&M

Department:

Wastewater Capital

Community Plan Element:

12 Community Facilities

Capital Improvement Plan Program:

no answer

Project Description:

In 2007/2008, a project was approved to investigate potential cracks in the surface impoundment berms and develop a plan to remove trees, roots and other excessive growth on reservoir berms. The consultant URS Corporation completed the investigation, including geological and soil testing, developed the approach and scope of work for the repairs and submitted the subsequent report to The Arizona Department of Water Resources (ADWR) for approval. ADWR approval was received in February 2008. A bid package will be prepared, and construction/renovation work are expected to begin in spring of 2009 and be completed in FY 2008/2009. A contingency is included in case the work is not completed as scheduled.

The structural integrity of the dams was confirmed during the investigation, and major reconstruction work is not anticipated at this time.

Additional berm work is required to for the Area 3 irrigation berm to prevent run-off of irrigated effluent.

Requirement/Need for Project:

This work is required by Arizona Department of Water Resources in inspection reports dated July 3, 2002 and July 3, 2007. The 2007 letter extended the deadline for the work from 2007 to 2012. However, the work should not be delayed for that long due to the potential damage to the dams from root intrusion.

Consequence of Not Performing Project:

Non-compliance with regulatory requirements. Fines and penalties.

Operation Impacts for Maintenance, Staffing, Etc.:

On-going berm maintenance will increase to remain in compliance and ensure the berms will not fall into disrepair again. On-going maintenance costs are for equipment rental and overtime man-hours, assuming the Decision package for a part-time utility man is not approved.

Related Projects:

no answer

Possible Funding Source:

Wastewater

Proposed Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013
Construction	\$200,000.00	\$0.00	\$0.00	\$0.00
Construction Mgt.	\$0.00	\$0.00	\$0.00	\$0.00
Contingency	\$100,000.00	\$0.00	\$0.00	\$0.00
Design/Engineering	\$0.00	\$0.00	\$0.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$0.00	\$0.00
Maintenance	\$0.00	\$0.00	\$0.00	\$0.00
FY Totals:	\$300,000.00	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
		Exp	oenditures Tota	al: \$300,000.00



Project Title:

Chapel Area 1A Sewer Collection System Project

22 Capital Improvements Fund:

59-5252-00-956, COLLECTION SYSTEM

Department:

Wastewater Capital

Community Plan Element:

Community Facilities 3.1

Capital Improvement Plan Program:

Wastewater

Project Description:

Project was designed in FY 2006/2007 and 2007/2008. Construction began in 2008/2009 and is expected to be complete in early 2009/2010 if not before. Install sewer mains in Vista Bonita Drive, Meadowlark Drive, thence west to SR 179, extend across to Skyline Drive, provide connection to existing system in Indian Cliffs Drive, hence to Chapel Lift Station; and upgrade lift Station. Upgrade lift station located in Indian Cliff subdivision at the end of Talia Court.

Requirement/Need for Project:

Install sewer improvements in this area in conjunction with Storm Drainage Improvements on Vista Bonita and extend sewer line across State Route 179 to Skyline Drive. The goal of the Wastewater Master Plan is to connect as much of the Sedona Area as possible to the Municipal Wastewater Treatment Facility. The installation of the storm drainage and sewer line as part of the same project minimizes construction disruption of area.

Consequence of Not Performing Project:

The City will incur added costs to add sewer after storm drainage project is completed. New development on the west side of SR 179 would not be connected to the sewage collection system. A portion of the City would remain unconnected to the wastewater collection and treatment system.

Operation Impacts for Maintenance, Staffing, Etc.:

Increased maintenance and operations costs for the sanitary sewer collection system and increase of treated wastes.

Related Projects:

Chapel Area IA - Storm Drainage Improvement (Vista Bonita), Chapel Area Sewer Improvements, Chapel Area Storm Drainage Improvements

Possible Funding Source:

\$.005 sales tax

Proposed Expenditures:	Pro	posed	Ex	oendi	itures:
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	FY 2009-2010	FY 2010-2011	FY 2011-2012
Construction	\$38,350.00	\$0.00	\$0.00
Construction Mgt.	\$0.00	\$0.00	\$0.00
Contingency	\$0.00	\$0.00	\$0.00
Design/Engineering	\$0.00	\$0.00	\$0.00
Environmental	\$0.00	\$0.00	\$0.00
Equipment	\$0.00	\$0.00	\$0.00
Land Acquisition	\$0.00	\$0.00	\$0.00
Maintenance	\$0.00	\$0.00	\$0.00
FY Totals:	\$38,350.00	<u>\$0.00</u>	<u>\$0.00</u>



Project Title:

Chapel Area Sewer Improvements

22 Capital Improvements Fund:

59-5252-00-956, COLLECTION SYSTEM

Department:

Wastewater Capital

Community Plan Element:

Community Facilities 3.1

Capital Improvement Plan Program:

Wastewater and Streets

Project Description:

Installation of sewer mains and associated manholes and sewer connections in the Chapel Area in 2007 through 2009. Approximately 25,000 feet of sewer mains and 366 sewer service connections. The work will be done concurrently with storm drainage improvements along Antelope Drive and other areas where the sewer line will be installed (to prevent disturbing the area a second time to install the storm drainage) (related project). Additional fire hydrants (related project) will be installed during the construction. After sewer, water and storm drain work has been accomplished in each area, the roads will be milled, shaped, and compacted and an asphalt cement concrete overlay applied. The design for the storm drainage improvements, sewer mains and road work has essentially been done. The project was designed in four areas, Areas 1B and 2 is anticipated to strt in late 2007/2008 and continue into 2008/2009, and Areas 3 and 4 should start in mid- to late 2008/2007 and continue into 200/9/2010. Area 1A sewer and storm drainage project are scheduled for FY 2007/2008 and 2008/2009 as part of the construction contract but funded separately. Construction management will be accomplished inhouse. Update record drawings after construction completed.

Requirement/Need for Project:

The goal of the Wastewater Master Plan is to connect as much of the Sedona area as possible to the Municipal Wastewater Treatment Facility.

Consequence of Not Performing Project:

A portion of the City would remain unconnected

Operation Impacts for Maintenance, Staffing, Etc.:

Increased costs for maintenance and operation of more extensive sewer collecion system and more treated wastes.

Related Projects:

Chapel Area 1A Sewer Collection System Project, Chapel Area IA - Storm Drainage Improvement (Vista Bonita), Chapel Area Storm Drainage Improvements

Possible Funding Source:

Excise Tax Obligations (\$7,405,000 earmarked)

Proposed	Expenditures:

	FY 2009-2010	FY 2010-2011	FY 2011-2012	
Construction	\$3,558,423.00	\$0.00	\$0.00	
Construction Mgt.	\$5,000.00	\$0.00	\$0.00	
Contingency	\$50,000.00	\$0.00	\$0.00	
Design/Engineering	\$0.00	\$0.00	\$0.00	
Environmental	\$0.00	\$0.00	\$0.00	
Equipment	\$0.00	\$0.00	\$0.00	
Land Acquisition	\$0.00	\$0.00	\$0.00	
Maintenance	\$0.00	\$0.00	\$0.00	
FY Totals:	\$3,613,423.00	<u>\$0.00</u>	<u>\$0.00</u>	
Expenditures Total: \$3,613,423.				



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WWTP - Northview Pump Station Abandonment

22 Capital Improvements Fund:

59-5252-00-956, COLLECTION SYSTEM

Department:

Wastewater Capital

Community Plan Element:

Community Plan Element 12

Capital Improvement Plan Program:

no answer

Project Description:

Abandon Northview Pump Station and convert to gravity flow with new sewer lines as needed, or upgrade pump station. Option is dependent on acquisition of easement.

Requirement/Need for Project:

Aging piping makes this area a high-risk area for sewer line blockage and spills. A gravity sewer line is preferable to a pumped system because of the reduction in long term energy and maintenance costs for the collection system. If an easement cannot be obtained for reconstruction, the pump station should be upgraded.

This project was delayed from 2007/2008 due to lack of in-house personnel availability for design work. The project is re-scoped for contract design.

FY 2009/10

Design began on this project in 2008/09. Due to budget concerns work on this project was limited to design in FY 08/09. Construction is reprogrammed to FY 09/10. The projection reflects \$15000 for conceptual engineering work, \$85000 design work, and construction cost in the amount of \$400,000.

Consequence of Not Performing Project:

Continued maintenance of the pump station. Continuing high risk of blockage, leaks, and spills.

Operation Impacts for Maintenance, Staffing, Etc.:

Reduced maintenance and operating costs.

Related Projects:

no answer

Possible Funding Source:

no answer

\$400,000.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00
60.00	\$0.00
10 000 00	
\$40,000.00	\$0.00
\$0.00	\$0.00
\$0.00	\$0.00
0.00	\$0.00
0.00	\$0.00
<u>8440,000.00</u>	<u>\$0.00</u>
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